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EXAMINER

RIBAR, TRAVIS B

ART UNIT

PAPER NUMBER

1711

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Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/868,654 | <b>Applicant(s)</b><br>TAMAI ET AL. |  |
|                              | <b>Examiner</b><br>Travis B Ribar    | <b>Art Unit</b><br>1711             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 July 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) ✓                                | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> . | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 6 and 7 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 6 and 7 appear to only indicate future intended uses of the transparent plastic film. Therefore, any reference that meets the claims upon which claims 6 and 7 depend will also meet claims 6 and 7.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

3. Claims 1-4 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Crouch et al.

The applicant claims a transparent plastic film that has a hard coating layer on one of its surfaces. The applicant claims the multilayer structure by defining a relationship between the thickness of the base film and the elongation percentage of the coated film where no cracks are generated in the hard coating layer. The paragraph bridging pages 6 and 7 of the specification states that the relationship the applicant claims exists in multilayer structures that do not crack after molding. Therefore, any structure that does not crack after molding would be assumed to inherently possess this relationship. Though this exact relationship is not explicitly defined in the prior art, it is a material property and any reference that has a laminate structure made of the same materials that the applicant discloses and that also shows resistance to cracks will inherently possess the relationship that the applicant claims in claim 1.

Crouch et al. discloses a multilayer structure that meets some of the applicant's claims. Crouch et al. discloses a hard coating for a polymer film that is made from the same acrylates (column 5 line 50 to column 7 line 33) that the applicant discloses in the specification. Further, the coating layer has good adhesion to the substrate and does not crack during molding or post-production processes (Crouch et al. claim 2) and is therefore assumed to inherently possess the relationship put forth in claim 1. The multilayer structure includes a flexible polycarbonate film substrate (column 3, lines 15-17) and the resulting coated film is wound into a roll, (column 8, line 35 and column 9, lines 33-34) meeting the applicant's claim 2 and 3. The substrate film also meets the thickness limitations of applicant's claim 4 (Crouch et al. claim 1).

Crouch et al. meets claims 6-7 as discussed in paragraph 1 of this office action.

4. Claims 1 and 4-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsuchiya et al.

Tsuchiya et al. discloses a hard coat film on a transparent (column 4, lines 36-43) plastic film (column 3, lines 55-57). The hard coat film is coated on one side of the film (column 3, lines 5-7) and is made from the same materials that the applicant discloses (column 4, line 61 to column 5, line 24). Tsuchiya et al. also states that the coating is resistant to cracking during and after the molding process (column 1, lines 50-57) and is therefore assumed to inherently possess the relationship put forth in claim 1.

The coated base film in Tsuchiya et al. is the same thickness that the applicant claims in claim 4 (column 6, line 45) and the coated multilayer film is useful as a cover film for a display (column 1, lines 9-12), meeting claim 5. Tsuchiya et al. meets claims 6-7 as discussed in paragraph 1 of this office action.

5. Claims 1-2 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Hosokawa et al.

Hosokawa et al. discloses a hard coat made from the same acrylates (column 4, lines 24-42) that the applicant discloses that is molded onto a film substrate with no cracking during the molding process (example 14). Since the hard coat has the same chemical composition as the applicant discloses and also has the cracking properties that the applicant describes, it is assumed to also inherently possess the relationship put forth in claim 1.

The base film in Hosokawa et al. is polycarbonate (column 9, line 57 and example 1), meeting the applicant's claim 2. Hosokawa et al. meets claims 6 and 7 as discussed in paragraph 1 of this office action.

6. Claims 1 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al.

Suzuki et al. discloses a hard, transparent resin (column 2, lines 7-8) that is coated on a substrate film (column 6, line 18). The invention does not crack when molded (column 12, lines 42-47) and is therefore assumed to inherently possess the relationship put forth in claim 1. In addition, Suzuki et al. teaches that the coated film is useful as a display cover (column 6, lines 11-12), meeting claim 5. Suzuki et al. meets claims 6 and 7 as discussed in paragraph 1 of this office action.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Crouch et al. in view of both Suzuki et al. and Tsuchiya et al.

Crouch et al. includes all of the limitations of claims 1-3 (discussed above), but does not include the use of the hard coated film as coverings for displays. Both

Tsuchiya et al. (column 1, lines 9-12) and Suzuki et al. (column 6, lines 11-12) teach that hard coated films similar to that in Crouch et al. are commonly used as coverings for displays.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the hard coated film in Crouch et al. as a covering for a display. The motivation for doing so would be that such films are known in the art to provide adequate protection for displays and that such films are commonly used as covers for displays. Therefore it would have been obvious to combine both Suzuki et al. and Tsuchiya et al. with Crouch et al. to obtain the invention as specified in claim 5.

9. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. in view of Crouch et al.

Suzuki et al. contains all of the limitations of claim 1 as discussed above. It does not, however, contain the limitations that the substrate is polycarbonate (claim 2), that the multilayer film is wound (claim 3), or the applicant's thickness limitation for the base film (claim 4). Suzuki et al. only teaches that a resin is used for the substrate (column 6, line 18), but doesn't explicitly teach the limitations that the applicant claims.

All of these limitations are in Crouch et al., which teaches that a polycarbonate film is used as a substrate for such coatings (column 3, lines 15-17), that the resulting multilayer film is wound (column 8, line 35 and column 9, lines 33-34), and that the base film is the same thickness (Crouch et al. claim 1) that the applicant claims in claim 4.

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At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a substrate such as the one in Crouch et al. in the multilayer structure in Suzuki et al. The motivation for doing so would be that such films are known in the art to be useful substrates for hard coats and that such multilayer structures are known to be useful as protective coverings. Therefore it would have been obvious to combine Crouch et al. with Suzuki et al. to obtain the invention as specified in claims 2-4.

This combination of references meets claims 6-7 as discussed in paragraph 1 of this office action.

10. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al. in view of Crouch et al.

Tsuchiya et al. includes the limitations of claim 1 (discussed above), but does not disclose that the substrate may be polycarbonate or that it may be wound (claims 2 and 3, respectively). Crouch et al. (also discussed above) discloses that it is well known in the art that not only does polycarbonate function as a suitable substrate for acrylate-based hard coats, but also that such films are also stored as wound rolls.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a polycarbonate base film in the invention of Tsuchiya et al. and to store it wound in a roll. The motivation for doing so would be that it is well known in the art to use a polycarbonate film as a substrate for acrylate-based hard coats and that it is also well known in the art to store such multilayer films as wound rolls. Therefore it



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would have been obvious to combine Crouch et al. with Tsuchiya et al. to obtain the invention as specified in claims 2-3.

This combination of references meets claims 6-7 as discussed in paragraph 1 of this office action.

11. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosokawa et al. in view of Crouch et al.

Hosokawa et al. discloses the invention in claims 1 and 2, but does not include the limitation that the resulting coated film is wound in a roll (claim 3) or the thickness limitation of claim 4. Crouch et al. (see above) discloses that it is well known in the art to store the coated films of the invention in wound rolls and that the substrate may be a film with the thickness the applicant specifies in claim 4.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to store the coated film in Hosokawa et al. as a wound roll and to use a substrate with the thickness that the applicant claims in claim 4. The motivation for doing so would be that both practices are known in the art to produce suitable coated films. Therefore it would have been obvious to combine Crouch et al. with Hosokawa et al. to obtain the invention as specified in claims 3-4.

This combination of references meets claims 6-7 as discussed in paragraph 1 of this office action.

12. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosokawa et al. in view of Tsuchiya et al.

Hosokawa et al. discloses the invention in claims 1 and 2, but does not include the thickness limitation of claim 4 or the use limitations in claim 5. Tsuchiya (discussed above) discloses these limitations and discloses that the thickness of the substrate that the applicant claims provides a useful coated film that can be used as a display cover.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a substrate with the thickness that the applicant claims in claim 4 and to use such a film as a display cover. The motivation for doing so would be that it is known that base substrates of the specified thickness used in protective coverings for displays. Therefore it would have been obvious to combine Tsuchiya et al. with Hosokawa et al. to obtain the invention as specified in claims 4-5.

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hosokawa et al. in view of Suzuki et al.

Hosokawa et al. discloses the invention in claims 1 and 2, but does not include the use limitations in claim 5. Suzuki et al. (discussed above) discloses that hard coated films are useful as display covers.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the hard coated film in Hosokawa et al. as a display cover. The motivation for doing so would be that it is known that hard coated substrates provide protective properties useful in display covers. Therefore it would have been obvious to

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combine Suzuki et al. with Hosokawa et al. to obtain the invention as specified in claim 5.

### ***Conclusion***

14. The examiner notes that the invention appears to be a method of testing a coated substrate to check the properties of a similarly molded product. The method of testing that the applicant claims (the relationship in claim 1) is not present in the prior art that the examiner searched. If the claims were rewritten to reflect that the applicant were claiming a *method of testing* a coated substrate, the claims may be patentable pending a search of the prior art for the new claims.

15. The enclosed European search report is noted by the examiner and the art applied in this office action is considered more relevant than that found within the search report.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis B Ribar whose telephone number is (703) 305-3140. The examiner can normally be reached on 8:30-5:00 Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

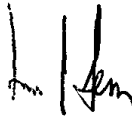
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872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Travis B Ribar  
Examiner  
Art Unit 1711

TBR  
August 26, 2002



James J. Seidleck  
Supervisory Patent Examiner  
Technology Center 1700